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REVIEW PAPER

Mitigating the Impact of the Coronavirus Pandemic on Rural Low-Income Families

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Abstract

The COVID-19 pandemic has disrupted rural communities and is exacerbating the economic, health, and social inequality for poor Americans in rural areas. Mounting job losses and illness in these communities are also pushing low-income families further into poverty. Based on previous research on rural poverty, this paper highlights the difficulties that marginalized rural families could experience due to the current pandemic. We focus on five major areas that affect the lives of the rural poor: economic security, family well-being, food insecurity, health security, and the challenges of rural living with a special focus on racial and ethnic minority families. We provide tangible recommendations on what can be done in the short term to enable rural families to cope with the consequences of the pandemic. We also discuss long-term policy recommendations that would be necessary for rural communities to thrive after the pandemic and survive future outbreaks.

Keywords COVID-19 pandemic · Economic security · Family well-being · Food insecurity · Health security · Rural poverty

More than 60 million Americans (19% of the total population) live in rural areas as defined by the U.S. Census Bureau (2019). While there is poverty in both urban and rural counties, evidence of higher poverty and persistent poverty is far more likely to be seen in rural counties, especially in the South (21%), among racial and ethnic minority households (African American: 32%; American Indian Native: 31%; Hispanic[1], any race: 24%), female-headed families with children (44%), and children (under 18 years: 22%) (ERS, 2020a). Even during the best of economic times, the rural poor, regardless of employment status, do not earn enough income to be self-sufficient. It has taken more than a decade for rural low-income families to recover, albeit partially, from the effects of the last major economic downturn, i.e., the Great Recession of 2007–2008. The 2020 Coronavirus pandemic has now devastated the economy once more. Although the number of Americans who have applied for unemployment benefits has dropped dramatically since the pandemic's initial phase (47 million in April[2]), it has not yet made a full recovery (U.S. Bureau of Labor Statistics, 2020a). Likewise, after an initial spike in unemployment rates[3] in April (metro areas: 14.6%; nonmetro areas: 13.7%), by August, the rates had declined (metro areas: 8.8%; nonmetro areas: 6.8%) (ERS, 2020b).

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[1] We use the term "Hispanic" when we present data from the US Census Bureau or other government sources since this is the term used by the federal government. In all other places in the paper, we use the term Latina/o.

[2] The unemployed number of nearly 47 million workers, by definition, does not include those who were laid off or left the workforce entirely after the onset of the pandemic, the eight million undocumented workers who lost jobs and are ineligible for benefits, or 2020 graduates looking to enter the labor force (Cohen, 2020).

[3] These are seasonally unadjusted rates.

As of the writing of this paper at the end of 2020[4], there is a new surge in cases (over 150,000 daily confirmed positive cases) as described by the weekly report from the White House Coronavirus Task Force, "There is now aggressive, unrelenting, expanding broad community spread across the country, reaching most counties, without evidence of improvement but rather, further deterioration" (Klein, 2020). The pandemic will not simply wipe away any post-recession gains made by low-income families; it will also push more of them further into poverty. One special characteristic of the economic downturn caused by the pandemic is its disproportionate effect on low-income households and those who are primarily racial and ethnic minority and women headed households. In non-metro areas, the proportion of confirmed cases was 12.7% in October (ERS, 2020b) and as the infection spreads further in rural communities, those families who are near-poor or already poor will slip even deeper into poverty in a post-pandemic economy.

While the pandemic's final toll on rural America is unknown, because its rapid spread is still ongoing, there are several reasons why rural counties have high rates of infection and deaths. Many rural residents—who in general tend to be poorer, older, and less healthy—are more likely to be sicker if they become infected. In addition, the labor for crop agriculture and overcrowded meat and other food processing operations is provided largely by another vulnerable group—undocumented migrants and immigrants, most without health insurance. Finally, with approximately 70% of prisons located in rural communities, an outbreak of the pandemic could easily spread through the prison population as well as families of prison workers (Oh & Abrams, 2020). These human factors along with inadequate virus testing and economic and political demands to keep the food industries open, is putting enormous pressure on an already poorly resourced rural health care system.

Our objective in this paper is to highlight some of the difficulties that marginalized rural families could experience in the aftermath of the current pandemic and to provide policy recommendations that may ameliorate their situation. The benefits from the Coronavirus Aid, Relief, and Economic Security Act (CARES) ($1200 checks for eligible individuals and additional $500 payment for dependents under 17) have waned, and the weekly $600 extra unemployment benefits expired at the end of July 2020. Many poor families are unable to survive and to pay for food and rent, a situation made only worse since eviction moratoriums enacted by cities and states are now expiring. Our assessment is based on the current state of knowledge as well as more than twenty years of research that we have conducted on rural low-income families, primarily through four studies with mothers of at least one child, under the age of 13, who were the study targets (Rural Families Speak [RFS][5], Rural Families Speak about Health [RFSH][6], Core Health Messages [CHM][7], and Dissemination of Core Health Messages [DCHM][8]). Using the Federal Poverty Line (FPL), study participants had to have income at or below 200% for RFS and 185% for RFSH; a subset of the RFSH sample was utilized for both CHM and DCHM studies.

We use the findings of our research, along with additional research, to elucidate five major areas that affect the lives of the rural poor: economic security, family well-being, food insecurity, health security, and the challenges of rural living with special focus on racial and ethnic minority families. We conclude with recommendations on what can be done to enable rural families to cope with the consequences of the pandemic, regardless of its lethality.

Challenges Faced by Rural Low-Income Families

Economic Security

The pandemic is exacerbating the income inequality that has become an unfortunate feature of American society as those with higher education and those in professional positions are more likely to continue working remotely through

[4] Please note that this paper was written at the end of 2020. The authors acknowledge that while the exact nature of the pandemic may have changed by publication date, many aspects of the pandemic's impact on the rural poor remain unchanged.

[5] Cooperating states included: California, Colorado, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New York, Ohio, Oregon, and Wyoming. This project was supported in part by the USDA, National Research Initiative Cooperative Grant Program (USDA/CSREES/NRICGP Grant 2001-35401-10215, 2002-35401-11591, & 2004-35401-14938).

[6] Cooperating states are California, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New York, North Carolina, Ohio, Oregon, South Dakota, Tennessee, Texas, Washington, and Wyoming with later participation from Arizona, Florida, Kansas, Mississippi, and Oregon.

[7] CHM (Grant 2010-46100-2179) was supported by the Rural Health and Safety Education Competitive Program of the USDA Cooperative State Research, Education and Extension Service, National Institute of Food and Agriculture. Cooperating states are California, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New York, North Carolina, Ohio, Oregon, South Dakota, Tennessee, Texas, Washington, and Wyoming.

[8] DCHM (Grant 2011-46100-3113) was supported by the Rural Health and Safety Education Competitive Program of the USDA Cooperative State Research, Education and Extension Service, National Institute of Food and Agriculture. Cooperating states are California, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New York, North Carolina, Ohio, Oregon, South Dakota, Tennessee, Texas, Washington, and Wyoming along with Arizona, Florida, Kansas, Mississippi, and Oregon.

the shut-down while working-class Americans in blue-collar and service jobs, unless considered essential workers, are being laid off in record numbers. The viability and vitality of rural communities depend on economically secure families. Mammen et al. (2017) reported that the economic well-being of vulnerable rural families is associated with: (1) their ability to harness various types of support including public assistance programs as well as social and family networks; (2) their skills in managing what resources they have at their disposal; (3) for employed mothers, their ability to meet the demands of work while juggling the needs of their family; and, (4) for those families who qualify, participating in the Earned Income Tax Credit (EITC) program.

Government assistance is the primary source of financial support for most rural poor households; for example, 43% of RFS families and 25% of RFSH families relied on the Temporary Assistance to Needy Families (TANF) program (Mammen & Sano, 2013). Since 2012, participation in the Supplemental Nutrition Assistance Program (SNAP) has been the highest among rural households (Lowe, 2018). Beyond government programs, a significant number of rural low-income families also rely on family and social supports for assistance from time to time (Mammen et al., 2017). As a result of the pandemic, support from family and friends may not, in all probability, be forthcoming if these sources are themselves facing job loss and financial crisis. Unable to meet their own needs, family and friends may not be able to extend any support towards other vulnerable members of their network. Community supports may also diminish or vanish entirely as these organizations face greater demand for their services with the same or reduced level of funding.

The United States Department of Labor reported that, in April 2020, the unemployment rate for workers with a college degree was 8.4% compared with 21.2% for workers without a high school diploma (BLS, 2020b). In general, rural residents are more likely to have less education, and those who are employed are more likely to work in production and manufacturing (Glauber & Schaefer, 2017). About one-third of the rural mothers in our studies did not have a high school diploma, and one-third of employed mothers were in mostly low-wage and service jobs (Mammen & Sano, 2013). The impact of the current economic downturn is expected to be especially severe for these low-wage and low-skilled rural workers.

Most economists are expecting jobs to return slowly in the aftermath of this crisis. This is partly because of the uncertainties that have arisen now that the Paycheck Protection Program (PPP)[9] has run out and negotiations over a second stimulus bill have currently stalled in Congress[10]. In addition, some jobs may be permanently transformed as employers may now realize the cost savings of not having employees work on-site. Rural poor individuals may not be able to capitalize on these new "remote/home" jobs if they lack the necessary human capital and are on the other side of the digital divide. In addition, about one-third of rural residents do not have broadband access and, according to a recent survey, states with larger rural populations, especially the rural poor, are most likely to not have broadband. There are presently 42 million Americans who have no broadband access; this number does not account for those who, although living in communities with broadband infrastructure, cannot afford the internet (Poon, 2020).

According to the USDA, the rural poverty rate in 2017 was 16.7% (ERS, 2019); among RFS/RFSH families, almost two-thirds perceived their income to be totally inadequate or sufficient only to afford some, but not all, of the things they wanted. As a result, even in the best of times, poor rural families (including those employed) had to rely on a mix of public assistance, occasional support from social networks and the community, as well as their resource management skills to simply get by. Ultimately, these strategies were not sufficient for families to achieve economic security (Mammen et al., 2017); in fact, when asked what they would do if they were given $20, several rural mothers readily acknowledged they would use it to buy diapers. This pandemic will only exacerbate the plight of poor rural families and ensure that they will face a bleak economic outlook.

Family Well-Being

Family well-being refers to a family's subjective sense of overall welfare, taking into account the physical and emotional health of family members as well as their interconnectedness. The current pandemic, however, is affecting well-being by elevating various risk factors among families in both metro and nonmetro areas, such as job loss, economic hardship, continuing stress, as well as physical and social isolation. These risk factors are associated with increased incidents of Intimate Partner Violence (IPV) and child abuse (Abramson, 2020). Approximately 14% of RFS/RFSH mothers reported experiencing emotional, physical, and sexual abuse. Even before the pandemic, a lack of capacity in human services in rural areas meant that women were twice as likely to be turned away, compared to urban women (Peek-Asa et al., 2011). The social isolation caused by the pandemic now further limits rural women's access to resources and hinders their ability to go to a shelter, reach

[9] PPP is a loan designed to provide a direct incentive for small businesses to keep their workers on the payroll. The Small Business Administration (SBA) will forgive loans if all employees are kept on the payroll for eight weeks and the money is used for payroll, rent, mortgage interest, or utilities.

[10] The Congress approved a second coronavirus relief package on December 22nd, 2020 after many months of negotiations.

out to police, or move in with a family member, forcing victims to remain with their abusers.

Children are particularly vulnerable to abuse and neglect during the pandemic. Increased stress level of parents is a major predictor of child abuse. The capacity of various services available to at-risk parents before the pandemic have been reduced significantly due to social distancing protocols. For example, home visits of social service agencies may not be possible; support services such as childcare, after school programs, extracurricular activities by religious and community organizations have been suspended; there is no opportunity for mandatory reporters (e.g., school bus drivers, teachers) to notice child abuse and neglect; and extended family members, friends, and neighbors may not be able to provide tangible support.

Findings from 20 years of RFS/RFSH research repeatedly demonstrate that informal social support—particularly for childcare—is key to healthy family functioning. As formal childcare is expensive and consumes a substantial amount of earnings of low-wage working mothers, families often rely on informal support including their own mothers for childcare (Son & Bauer, 2010; Yancura et al., 2020). Despite complicated and frustrating relational dynamics at times, it is clear that receiving such informal support is a primary survival strategy for many low-income families (Katras et al., 2015).

During the pandemic, however, these essential supports have been significantly reduced not only due to social distancing but because older family members are also an at-risk population for the virus. In such cases, working parents, fortunate to not have lost their jobs, may have to rely on older children to look after younger siblings while they are working. Even parents who can work from home have to balance work and taking care of children simultaneously (Garbe et al., 2020). Parents, including non-English speaking parents, are forced to support their children's online learning, often at multiple grade levels, while also managing their own work responsibilities thereby creating additional stress on families. Balancing separate spheres of work and family was already a significant issue before the pandemic. This situation has been further exacerbated by the pandemic, due to schools' resorting to virtual classrooms.

Food Insecurity

Prior to the pandemic, households in rural counties (16%) were more likely to require support from the Supplemental Nutrition Assistance Program (SNAP) than those in small town counties (15%) or metro counties (13%) (Vollinger, 2018). Over half of the low-income families in our research were food insecure and had to rely on SNAP [62%], Women, Infants, and Children (WIC) [69%], and National School Lunch Program (NSLP) [76%] (Mammen & Sano, 2013). The pandemic has brought about record high unemployment and, as a result, applications for SNAP have surged nationwide; the USDA has reported that 14.9% more Americans received SNAP benefits in April 2020 than in April 2019 (ERS, 2020c). Furthermore, with many schools closed or in a hybrid model, children who relied on NSLP for food are at risk of going hungry. Since the onset of the pandemic, efforts have been made to ensure that children have access to food through a combination of summer nutrition programs, school meal programs, afterschool nutrition programs, and Pandemic Electronic Benefit Transfer (P-EBT) (Food Research & Action Center, 2020).

Before the pandemic, not all eligible rural families applied for SNAP because of lack of information, onerous application and re-certification processes, and limited access to SNAP offices due to inconvenient hours, long travel distance, or lack of transportation (Food Research & Action Center, 2018). In addition, because participation in SNAP does not ensure food security, rural families have to rely on community resources including food pantries and churches and individual sources such as family and friends (Greder et al., 2009). Latina/o immigrant families, in particular, face additional burdens such as cultural differences and ineligibility to participate in public programs and, therefore, tend strongly to rely on social support for food (Greder et al., 2009). For a long time, food banks have played an important role in meeting the food needs of many poor rural families, even those who participate in SNAP. The pandemic has, however, put enormous pressure on the nation's food banks struggling to meet the demands of not just the poor but also of those who are newly unemployed, regardless of economic status (Bloch, 2020). As for extended family members and friends who have been a traditional source of food support, the pandemic may leave them unable to provide assistance as they too may be struggling to feed themselves.

To manage food insecurity, vulnerable rural mothers also use a variety of shopping techniques (coupons, bulk buying), money-related techniques (juggling bills, writing bad checks), food production and storing techniques (gardening, canning), as well as some risky food consumption reduction strategies (curbing appetite by smoking and dieting, skipping meals, feeding children before adults) (Mammen et al., 2009). Some of these behaviors have also been reported during the pandemic; 26% of adults (including 30% of those who have lost a job or income, 30% of Black individuals, and 26% of Latino/a individuals skipped meals or relied on charity or government food programs (Hamel et al., 2020). It is imperative to ensure that desperate rural low-income families are able to, where possible, engage in more affirmative actions (coupons, canning) and not resort to negative behaviors that may imperil their health (starving themselves).

Another ominous effect of the pandemic has been the rise in grocery prices which had their biggest monthly increase

of 2.6% in nearly 50 years in April led by rising prices for meat and eggs (Riley, 2020). Low-income families' access to nutritious food is also affected by other factors including a shortage of food in some grocery stores, especially at the beginning of the pandemic, as well as the existence of food deserts in some communities. If government assistance remains the same or is reduced, and community resources and social support cannot pick up the slack, families who are already on the edge will fall deeper into food insecurity while newly unemployed families will begin to experience hunger.

Food insecurity not only diminishes rural parents' ability to create an optimal food environment for their children (Sano et al., 2019) but, also, predicts problem behaviors among children such as interpersonal conflicts and depression (Bao et al., 2016). Food-insecure rural low-income women, especially Latina women, are more likely to experience depression; food-insecure Latino families are also far more likely to end up with numerous health difficulties (Cancel-Tirado et al., 2017). Previous research lends support to the notion that the devastating impacts of hunger resulting from the pandemic will exacerbate the physical and mental health of children as well as adults.

Health Security

Current evidence suggests that individuals who experience severe COVID-19 illness are those who are older than 65 years of age and/or individuals with underlying health conditions including obesity, diabetes, and heart disease. In addition to the fact that rural areas have a disproportionate share of older adults, rural populations experience higher rates of health problems including heart disease, cancer, unintentional injuries, chronic lower respiratory disease, and stroke compared to urban populations (Moy et al., 2017). Our RFS/RFSH research also points to significant health issues among rural residents; 76% of mothers were either overweight or obese, 13% had high blood pressure, and large numbers of them reported a variety of other health conditions with rates of health concerns higher than the general U.S. population (Radunovich et al., 2017). Recent research has also documented that, compared to urban children, rural children are more likely to be overweight or obese and their parents are less likely to report that their children received preventative medical or dental health care (Probst et al., 2016).

Rural low-income residents are also more likely to engage in risky behaviors. Compared to their urban peers, rural residents are more likely to use both alcohol and opioids resulting in higher incidences of risky alcohol-related behaviors and opioid-related overdose deaths (Gale et al., 2019). Among RFS/RFSH participants, 35% reported engaging in two or more risky behaviors including alcohol and substance abuse, and 36% reported that they smoked. A recent study of COVID-19 patients found that the rate of disease progression among current and former smokers is nearly double that of non-smokers (Patanavanich & Glantz, 2020). Although the impact of long-term social distancing on risky behaviors is not known yet, it is reported that sales of alcoholic beverages in the US have increased 55% (Bremner, 2020). When their fragile economic status is combined with social isolation, vulnerable rural residents may be more likely to engage in stress-induced alcohol and/or substance abuse. The end result may be a worsening of the already problematic opioid and other substance abuse situation in rural communities.

Compared to urban residents, rural residents also face a higher risk of mental illness, including suicidality and depression, particularly among women, low-income children, non-Latino/a Black individuals half (48%) of RFS participants and about one-third (35%) of RFSH participants were at risk for clinical depression (Mammen & Sano, 2013). According to Gale et al. (2019), reduced access to health care services, including mental health and emergency medicine, contributes to the mental health crisis in rural communities. This is particularly alarming in the context of the current stay-at-home environment as increased social isolation is associated with higher likelihood of experiencing depression, anxiety, as well as other mental health illnesses (Martin et al., 2016). In fact, since the pandemic, 24% of Americans have shown clinically significant symptoms of major depressive disorder and 30% have shown symptoms of generalized anxiety disorder. Fowers and Wan (2020) also reported that the rate of anxiety and depression is far more acute among the poor, women, and young adults who are much more likely to be confronted with loss of employment, social isolation, and uncertainties about the future. Yet, receiving appropriate treatment for mental health illness is especially difficult for poor rural families who are faced with a shortage of mental health specialists, hospitals/clinics located only at a great distance, few health care facilities accepting Medicaid, and, finally, the social stigma attached to mental illness (Sano et al., 2020a). Further, it is plausible that, in this pandemic, individuals with mental illness may avoid seeking help from health care professionals due to the fear of contracting the virus.

COVID-19 is a new strain of coronavirus, and health authorities' recommendations on how to prevent contracting and/or transmitting the virus have changed and continue to change as new information becomes available. With the deluge of fast-changing, complicated information, it is crucial for people to understand health information correctly and translate knowledge into practice. Unfortunately, as noted by Paakkari and Orkan (2020), lower health literacy is an underestimated, yet significant, problem during the COVID-19 pandemic. For example, compared to the national average, the rate of COVID-19 vaccinations is significantly

lower among rural adults and unvaccinated individuals are at increased risk of hospitalization (Eckelkamp, 2021)[11] Our research participants reported having difficulties acting on health information (50%), not receiving health information in their preferred language (10%), having difficulty understanding health information from health professionals (16%), and needing assistance in understanding health instructions (30%) (Sano et al., 2020b). Given the growing rural Latino/a population whose native language is not English, addressing health literacy now is even more critical to prepare this population for current and future health situations that may include other pandemics.

Finally, unequal access to health care among racial and ethnic minorities, rural populations, and the working poor has been an issue in the US for decades; the pandemic is further exposing this devastating inequality. Our research has revealed that Latina/o families are more likely to lack health and dental insurance compared to other families, which is possibly a reflection of their immigration status (Greder & Routh, 2014). Latina/o families are also more likely to lose their health insurance coverage when they experience changes in employment. Thus far, 14.6 million Americans (7.7 million workers mostly in manufacturing and 6.9 million dependents), may have lost health insurance due to the pandemic (Fronstin & Woodbury, 2020). Approximately half of the newly unemployed individuals in states with Medicaid expansion will be able to obtain Medicaid, with less than a quarter uninsured. In states without Medicaid expansion, however, only one-third will receive coverage and about 40% are estimated to be uninsured (Garrett & Gangopadhyaya, 2020).

Challenges of Rural Living Especially for Racial and Ethnic Minorities

Living in rural areas has always posed many unique challenges, especially to low-income families. In general, rural communities (1) have suffered a decline in population due to outmigration and increased deaths from opioid and heroin overdoses; (2) with fewer employers, job losses have not recovered fully after the Great Recession; (3) deal with lower wages and salaries with few opportunities for upward mobility for individuals; (4) experience greater and more persistent poverty; (5) lack broadband access; (6) suffer from a lack of health professionals and poor medical infrastructure with fewer hospitals, some of which are closing; (7) have no public transportation; and (8) face fewer affordable and quality housing alternatives for vulnerable families (Mammen et al., 2017). Additionally, over the past couple of decades, many rural communities have gone through a dramatic shift in demographic makeup, with the share of racially and ethnically diverse groups increasing at higher rates than non-Hispanic White ethnic households. Latino/a households, the fastest growing group in non-metro areas, have sought employment opportunities especially in crop agriculture and meat processing.

The challenges of rural living can be especially difficult for low-income families. For racial and ethnic minority families and for more recent arrivals, these challenges can be particularly trying when combined with limited English proficiency, lack of documentation, racism, and discrimination (Cancel-Tirado et al., 2017). A special case in point are Native American communities where the COVID-19 outbreak highlights significant health care disparities. The Navajo Nation—the largest territories of Native American tribes in the US—is experiencing one of the highest infection rates in the country. The disproportionate rate of COVID-19 infection per capita is considered a result of insufficient Indian Health Service (IHS) funding, lack of health care infrastructure, poorer communication technologies (e.g., sporadic cell phone service, lack of internet connection), isolation from resources, and various social determinants of health (Scherr, 2020).

Several structural issues of rural communities contribute directly to the health insecurity of families. For example, all RFSH participants resided in rural counties designated as Health Professional Shortage Areas (Mammen & Sano, 2013). Since 2010, 130 rural hospitals faced with financial distress have shut their doors and many more are either "vulnerable or at risk for closure" (The Cecil G. Sheps Center 2014). Furthermore, these closed rural facilities are mostly in the South (60%), where people are poorer, less healthy, and far less likely to have health insurance, whether private or public. The greater geographic distance to health care facilities, fewer community health services, and unreliable personal transportation as well as lack of public transportation discourages poor rural families from seeking preventative care and treatment, making it more likely that they will wait to see a health professional while their health deteriorates to a point that emergency medical care is needed (Greder & Sano, 2011). Furthermore, utilization of telehealth—the delivery and facilitation of health and health-related services—is challenging due to a lack of broadband access. Compared to 1.5% of urban residents, 22.3% of rural residents and 27.7% of Americans in Tribal Lands do not have access to reliable, affordable high-speed internet (FCC, 2020), making it difficult for rural families to access evidence-based information including information on the prevention, treatment, and vaccination for COVID-19. Given this dire observation along with the special challenges of rural living, marginalized families in resource-poor rural counties, if infected, will not be able to easily overcome the disease and its financial aftermath.

[11] As of July 2021, Eckelkamp reported vaccination rate of rural adults was only 34% compared to national average of 70% and almost all COVID-19 related hospitalization in rural communities were individuals without vaccination.

Recommendations to Mitigate the Impact of Coronavirus on Rural Low-Income Families

Based on previous research findings, we can surmise that the pandemic will exacerbate the challenges faced by rural, low-income families. In order to mitigate the impact of the coronavirus on this vulnerable population, policymakers should pay special attention to the unique challenges of rural living. In the best-case scenario, creative solutions will arise through public–private partnerships with input from community stakeholders and, most importantly, from members of the target population (Mammen et al., 2018). Our research indicates that such a combined effort will be a more effective way to lessen the pandemic's toll and place marginalized rural families on a better footing so that their lives may be less precarious through this as well as other unforeseen future disasters. Here are some recommendations to ameliorate the effects of the pandemic on the rural poor.

Recommendations to Ensure Economic Security

Following the ebbing of the first wave of COVID-19 cases in the spring, states opened up slowly, and businesses that had survived began to recall their workers. Since then, the US has experienced a second wave of the pandemic with increasing numbers of infections and deaths in both metro and non-metro areas across the country and, while hopes turn to increasing vaccine rates, now finds itself in the midst of a third wave. Regardless of what actions the federal and state governments might take in terms of future shutdowns, it is important to bear in mind that rural communities have always had fewer employment opportunities.

Working with community stakeholders and other partners, wherever possible, states should train and place low-income rural adults in jobs that are considered essential in the pandemic such as in health care (hospitals, nursing homes) and food industry (food production, grocery stores), with the expectation that these individuals would be prioritized for getting the vaccine. Health care facilities need to replenish staff as they lose them to quarantine and other reasons. The agricultural sector may be able to provide employment to assist farmers whose crops might otherwise be left unharvested or plowed under because of the pandemic. Rural adults could be hired to work on farms alongside immigrant workers or in their place if immigration policies are not changed to allow immigrant farm workers into the country. Other job opportunities for qualified rural low-income individuals may exist at community organizations and non-profits that provide services such as food banks to the underserved.

One of the benefits of being employed is the ability to qualify for the Earned Income Tax Credit (EITC) which has greatly contributed to working rural families' finances. An increased effort must be made to ensure that eligible, working rural adults participate in the EITC program, particularly racial and ethnic minorities. Increasing the amount of the tax credit may also encourage more rural, low-income individuals to enter the labor force and remain employed (Mammen et al., 2011).

In response to the stay-at-home orders, TANF agencies in several states have been adjusting their policies to better meet client needs during this pandemic. These include changing income thresholds for TANF eligibility; discounting financial support from the CARES act to calculate TANF eligibility; qualifying kinship caregivers themselves for TANF benefits; offering families a one-time cash payment to meet immediate needs caused by the pandemic; providing flexibility in meeting federal work requirements; and lifting sanctions when families violate TANF requirements (Shantz et al., 2020). In addition, TANF's time limit of five years before families are required to exit the welfare clock could instead be tied to the national or state unemployment rate dropping to a reasonable rate (say, 6% or 7%). The anxiety faced by welfare-dependent rural families would be relieved if more states adopt these policy changes.

Because many college campuses across the country are not fully open due to the pandemic, college-aged volunteers could be one possible source of support for rural communities. Through AmeriCorps/VISTA program, they may be able to provide services to rural residents such as computer literacy, business startup assistance, childcare help, tax preparation, or transportation. For their service, they could be awarded college credits, a stipend, or even partial student loan forgiveness. For this to be successful, recruitment efforts for volunteers should also target those who can speak Spanish and/or identify culturally with different racial and ethnic rural residents.

In the long run, higher educational attainment could enable rural low-income families to seek better-paying jobs when employment opportunities improve after the pandemic. One potential means for these families to increase their human capital is through free or reduced tuition for those who attend community college, trade school, or a 4-year college. Community banks should be encouraged to provide start-up or microfinance loans to those individuals who are interested in starting a small business.

Recommendations to Promote Family Well-Being

The pandemic and social isolation have created a crisis for many adults and children due to increased incidents of IPV and child abuse and neglect. In addition to raising awareness of risk for IPV and child abuse during stressful times, information about services must be widely disseminated in

communities through social media and TV and radio as well as at community health facilities and other locations.

Most importantly, social connections during the time of crises are essential not only to prevent and intervene in IPV, but to empower physically isolated parents, particularly mothers with young children who may be at higher risk for child abuse and neglect. RFS/RFSH research revealed that a lack of social support undermines mothers' parental competency. While family, friends, and romantic partners function as first-line of support, they may come with stress and frustration (Sano et al., 2012). In times of crisis, parenting experts and mental health professionals play a critical role in preventing child abuse by establishing rapport through regular check-ins with at-risk mothers. In addition to face-to-face meetings, effective usage of tele-communication, including phone, text, email, and social media should be implemented.

As vaccines are more widely distributed, enabling employees to return to work, the burden of balancing work and family is likely to intensify for low-income, employed mothers. Our research consistently found that informal childcare is the key for mothers' ability to obtain and maintain their employment. Although extended family networks, particularly children's grandmothers, play a critical role, childcare policies often focus on only one generation, rather than multi-generations (Barnett et al., 2016). In the aftermath of the pandemic, it would be useful to formalize payments to grandparents who act as primary childcare providers in order to help mothers keep their jobs, which may include irregular hours and odd schedules, thereby, increasing flexibility in their childcare options while providing some financial support to grandparents. In the long run, however, policies must address flexibility in formal childcare arrangements including extended hours and weekends and expand support to include paid sick leave as well as education for supervisors.

Recommendations to Achieve Food Security

The pandemic and accompanying unemployment have left a lot of Americans needing food assistance—long lines of vehicles in parking lots waiting for emergency food distribution from food banks is not an uncommon sight across the country since the pandemic. RFS/RFSH researchers and others have highlighted the food insecurity experienced by rural low-income families prior to the pandemic and the effect this may have on their physical and mental health.

To address the hunger issues of low-income families in the COVID-19 crisis, policy makers have introduced more flexibility in the way SNAP is administered. Through the Families First Coronavirus Response Act, the USDA has temporarily modified the SNAP application process to make it easier for families to continue participation in or apply for SNAP and most states have adopted these changes to accommodate the surge in SNAP applicants. These changes include: accepting telephone applications; extending recertification periods; suspending the three-month time limit on benefits for unemployed adults under age 50 without children at home; increasing emergency supplementary and school meal replacement benefits; allowing schools, with virtual or in-person classes, to provide benefits to children; including low-income young children in child care settings, and expanding the program to territories such as Puerto Rico; and allowing online food purchases using P-EBT (pandemic electronic benefit transfer) with state-approved retailers (Center on Budget & Policy Priorities, 2020). Until the vaccine rates increase, it is important that these temporary SNAP changes are kept in place. It is also crucial that families of immigrant workers, who are ineligible for public programs, are assisted with their food needs particularly since those who work in the fields or meat processing or dairy plants are responsible for America's food supply at this time of national crisis and are deemed essential.

Even in the best of times, food banks in rural areas are unable to provide clients with sufficient food in terms of type (protein, fresh fruit), quality (healthy, organic), and cultural appropriateness. Perhaps post pandemic, public–private efforts could address this issue by incentivizing discount grocery retailers to locate in rural communities. Farmers could allow gleaning so that individuals can gather crops from fields after they have been harvested mechanically or in cases where it is neither economically nor logistically feasible to harvest a field. Community stakeholders can work with low-income families on longer term solutions such as assisting them to produce food through gardening programs. Finally, in spite of the urgency of the situation which calls for more immediate distribution of food, there has to be a recognition that immigrant families require certain foods which would enable them to maintain healthy cultural food traditions (Sano et al., 2018).

Recommendations to Provide Health Security

The findings from our research have shown that living in poverty creates significant health challenges and that rural populations simply do not have the same access to health care as urban populations (Dyk et al., 2018), a situation that is now clearly exacerbated by the pandemic. One key element to expanding access to health care is to increase the number of people who have health insurance; without this, it would be difficult to pay for COVID-19 testing and, if necessary, treatment. Under the Affordable Care Act (ACA), 37 states have adopted Medicaid expansion (Hamel et al., 2020). The Urban Institute has estimated that the rate of uninsured individuals who lost their jobs due to COVID-19 will be much higher in states without Medicaid expansion. The Families First Coronavirus Response Act (effective April 1, 2020) has provided free coronavirus testing for

everyone, provided that states use their Medicaid programs to cover the uninsured. States should, therefore, be incentivized to adopt Medicaid expansion. Even with Medicaid and subsidized coverage through the ACA marketplaces, many individuals could face a gap in coverage for the pandemic. Given that the virus does not discriminate between rich and poor, urban and rural, or citizens and noncitizens, establishing universal coverage, regardless of its form (single-payer system, combinations of private and public insurance, etc.), should be a long-term priority. In the short term, Congress should authorize funding for those without health insurance coverage to be able to seek COVID-19 testing and treatment.

RFS/RFSH findings further suggest that rural residents experience decreased availability, accessibility, and acceptability of health care services relative to their urban counterparts. To reduce urban–rural health disparities, the rural health infrastructure could be improved by granting providers incentives to accept Medicaid patients, increasing service provider efficiency, developing community health provider networks, and utilizing information technology more efficiently. Other effective strategies include integrating mental/behavioral health services with primary health care and fostering collaboration among primary care providers, mental/behavioral health professionals, and other social services workers, including welfare-to-work counselors. Promoting telemedicine with an interpreter for non-English speaking families would reduce travel time to a health care provider, decrease stress to find a childcare provider while seeing a health professional, and expand choices of medical interpreters with whom they feel comfortable. Finally, increasing funding to develop mobile units would enable most disadvantaged rural residents—those who do not have reliable transportation, have limited physical mobility, and cannot afford taking time from their work—to access health information and health services directly.

Children are powerful motivators for parents to change their behaviors positively (Sano et al., 2012). Therefore, public health campaigns to promote family health should target low-income parents with younger children regarding healthy life choices. An important caveat about such campaigns is that the needs of the target population must always be considered since they may hold views and understandings of health that are fundamentally different from those of health authorities and the majority population. Our findings from the CHM and DCHM projects demonstrated that Participatory Action Research, a learner-based approach, is a successful approach which work *with* target populations to create culturally relevant materials at appropriate literacy levels in their spoken language (Mammen et al., 2018). Poor rural families, regardless of race/ethnicity, attitudes and beliefs, and resources, share certain unique characteristics and vulnerabilities; they all experience deeper and more persistent poverty, have difficulties in accessing resources, and face geographic isolation. These characteristics strongly influence their beliefs and ability to implement recommended health behaviors. Thus, culturally sensitive health messages that are disseminated must fit into the reality of rural living in order to prevent, intervene, and promote family health.

Recommendations to Overcome Challenges of Rural Living

Our findings from two decades of research have highlighted poverty in a rural context and the special challenges that low-income families face within this context. It is neither reasonable nor realistic to expect that all, or even some, of the long-term challenges of rural living can be addressed effectively in a short time period in the middle of a pandemic. If the future trajectory is for rural populations to continue to decline, there will be no impetus to rectify some of the issues. For example, most employers will not be willing to relocate to rural areas other than agricultural and livestock businesses who, for reasons of proximity, may continue to be situated here. Other rural employers may have little incentive to support their employees by raising wages or providing benefits or negotiating work-place flexibility. Without large infusions of cash, the rural health infrastructure may continue to crumble with more hospital closings and low-income families having to seek medical treatment great distances away or go without. Public transportation may be a non-starter and affordable housing may be a pipe dream.

There are, however, some things that can be done right now to improve the circumstances of the rural poor which can have a lasting impact on their lives, especially in the aftermath of the pandemic. Rural communities have strengths and assets which can be used to tailor policies and programs. As mentioned earlier, many rural communities have seen a shift in demographic makeup resulting in greater racial and ethnic diversity. This influx of mostly Latina/o immigrants can bring much-needed youth and vitality to dying communities as well as create demand for businesses. Many of these immigrant families, however, face greater challenges especially when accessing community services, including health services, due to limited English proficiency, not understanding eligibility requirements, lack of legal documentation, insufficient culturally relevant and responsive services and, finally, racism and discrimination (Greder & Routh, 2014). Community leaders should actively address issues of racism and discrimination so that these families feel welcomed and more fully integrated into rural communities.

Lack of legal documentation is primarily the federal government's responsibility. Congress should enact appropriate legislation as the agricultural sector and the nation's food supply have become dependent on immigrant laborers who are at increased risk of getting and spreading COVID-19 due

to their working conditions. Some states have provided relief to undocumented immigrants by issuing driver's licenses (National Immigration Law Center, 2020) which makes it easier for immigrants to reach out to various community support organizations. Additionally, workplace interventions and prevention efforts should be tailored to workers in the agriculture and food industries in order to reduce the risk of getting COVID-19 at work.

While finding a permanent solution to the closing of rural hospitals is a long-term proposition, an action that federal and state governments can do more quickly is to commit to broadband expansion and access to browsing devices in all rural areas. Such a move will not only improve the overall quality of life of all residents, including children from marginalized rural communities, it will also assist in the delivery of healthcare services via telehealth, rapid dissemination of culturally-relevant health messages, and increase remote work opportunities. It may even encourage others who wish to enjoy country living to relocate to rural communities.

Conclusion

Drawing on past research findings, we have analyzed the impact of the pandemic within the framework of five major areas affecting the lives of the rural poor: economic security, family well-being, food insecurity, health security, and the challenges of rural living with special emphasis on racial and ethnic minority families. While the effects of COVID-19 are relevant to all families, irrespective of their region of residence, its consequences are magnified among the rural poor due to unique challenges that they face.

Clearly, in a public health crisis with an easily transmissible coronavirus, the first concern is about health. Therefore, denying medical services and/or discouraging sick individuals from seeking costly medical help is, ultimately, self-defeating; the virus will only continue to spread unabated, causing greater disruption in rural communities. Addressing this issue will require a concerted effort to immediately provide medical attention at the public's expense for the rural poor who are sick with COVID-19, regardless of documentation status, health insurance status, or lack of nearby medical facilities. In this pandemic, rural low-income families will also suffer greatly from financial and material hardship, inadequate nutrition, and the difficulties of rural living, all of which must be addressed quickly in order for the rural poor and, ultimately, rural America to survive.

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Declarations

Conflict of Interest My coauthor and I do not have any interests that might be interpreted as influencing the research, and the APA ethical standards were followed to protect human subjects. As this is a review paper based on the studies our research group ("*Rural Families Speak*" projects) produced over the last two decades, we did not go through a process of Institutional Review Board for this particular manuscript. However, we assume all *Rural Families Speak* papers were compliant with ethical standards and received appropriate approvals from each author's institutions. This manuscript is not funded by any agencies/organizations. Dr. Sano is a member of the Editorial Board of the Journal of Family and Economic Issues. Dr. Sano was not involved in the peer-review or handling of the manuscript. The authors have no other competing interests to disclose.

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